Title (en)

MMC-HVDC SYSTEM, AND DIRECT-CURRENT SIDE ISOLATION DEVICE AND ISOLATION METHOD THEREFOR

Title (de)

MMC-HVDC-SYSTEM UND ISOLIERUNGSVORRICHTUNG UND ISOLIERUNGSVERFAHREN FÜR GLEICHSTROMSEITE DAVON

Title (fr)

SYSTÈME DE MMC-CCHT, ET DISPOSITIF D'ISOLATION DU CÔTÉ À COURANT CONTINU ET SON PROCÉDÉ D'ISOLATION

Publication

EP 3171476 A4 20180502 (EN)

Application

EP 15895149 A 20150814

Priority

- CN 201510483656 A 20150807
- CN 2015086975 W 20150814

Abstract (en)

[origin: EP3171476A1] An MMC-HVDC system and an isolation device and isolation method for a direct current of the MMC-HVDC system are provided. The isolation device includes first isolation switches, current transfer switches, input and output terminals and a direct current breaker. One terminal of the direct current breaker is grounded and the other terminal of the direct current breaker is connected to all of the first isolation switches. Each of the first isolation switches is connected to one of the input and output terminal via one of the current transfer switches. Each of the current transfer switches includes a first arrester and one of a first IGBT group and an H-bridge group connected to the first arrester in parallel. The first IGBT group includes N first IGBTs and N second IGBTs. The H-bridge group includes N H-bridge circuits connected in series to each other, and each of the H-bridge circuit includes one first capacitor and four third IGBTs. N#¥kU 0 /U 1 , N ## Z. The isolation device can isolate the MMC and multiple direct current lines from the MMC-HVDC system, and save an investment cost of a power grid.

IPC 8 full level

H02J 1/10 (2006.01); **H02H 3/02** (2006.01); **H02H 3/033** (2006.01); **H02H 3/05** (2006.01); **H02H 7/26** (2006.01); **H02H 7/28** (2006.01)

CPC (source: EP)

H02H 3/02 (2013.01); **H02H 3/033** (2013.01); **H02H 3/05** (2013.01); **H02H 7/268** (2013.01); **H02H 7/28** (2013.01); **H02J 1/10** (2013.01)

Citation (search report)

- [I] CN 104767185 A 20150708 - UNIV ZHEJIANG
- [I] US 2014313641 A1 20141023 - BERGGREN BERTIL [SE], et al
- [A] WO 2012116738 A1 20120907 - ABB RESEARCH LTD [CH], et al
- See references of WO 2017024598A1

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Designated contracting state (EPC)

AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

Designated extension state (EPC)

BA ME

DOCDB simple family (publication)

EP 3171476 A1 20170524; **EP 3171476 A4 20180502**; **EP 3171476 B1 20221005**; CN 104993472 A 20151021; WO 2017024598 A1 20170216

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